

What is Claimed Is:

1. A steerable catheter device comprising:
  - a sheath engaging a body portion of a handle, the sheath having an outer end and  
5 an inner end;
  - a fitting supported by the handle and engaging the sheath;
  - a flexible catheter engaging the handle and extending through the sheath, the  
flexible catheter having opposite open ends with a distal end of the flexible  
catheter engaging a shape memory catheter tip;
  - 10 a medical device inserted within the flexible catheter; and
  - a first lock supported by the handle for adjusting a force required for longitudinal  
movement of the flexible catheter relative to the sheath and for locking the  
flexible catheter relative to sheath along a longitudinal axis of the sheath.
2. The steerable catheter device of claim 1 wherein the first lock comprises a portion of the  
15 handle threadably engaging the fitting.
3. The steerable catheter device of claim 1 wherein the first lock comprises a resilient  
compressible lock member.
4. The steerable catheter device of claim 1 wherein the first lock locks the flexible catheter  
relative to the sheath in a plurality of locations between a first limit of the handle and a  
20 second limit of the handle.
5. The steerable catheter device of claim 1 wherein the first lock controls a frictional  
resistance to longitudinal movement of the flexible catheter relative to the sheath.
6. The steerable catheter device of claim 1 wherein the fitting is engaged to an irrigation  
inflow tube.
- 25 7. The steerable catheter device of claim 1 wherein the fitting is engaged to an aspiration  
outflow tube.
8. The steerable catheter device of claim 1 wherein the fitting is engaged to an irrigation  
inflow tube and an aspiration outflow tube.
9. The steerable catheter device of claim 1 wherein the flexible catheter is disposable.
- 30 10. The steerable catheter device of claim 1 wherein a distal end of the shape memory  
catheter tip is rounded.

11. The steerable catheter device of claim 1 wherein the shape memory catheter tip comprises a plurality of radiopaque markings.
12. The steerable catheter device of claim 1 further comprising a second lock supported by the handle for adjusting the force required for longitudinal movement of the medical device relative to the flexible catheter and for locking the medical device relative to the flexible catheter.
13. The steerable catheter device of claim 12 wherein the second lock comprises a resilient compressible lock member.
14. The steerable catheter device of claim 12 wherein the second lock comprises an end cap threadably mounted on the handle.
15. A steerable catheter device comprising:  
a sheath having a plurality of holes at an outer end of the sheath for discharging an irrigation media;  
a handle having a body portion engaging the sheath for supporting the sheath;  
a catheter extending through the sheath creating an annular channel between the catheter and the sheath, the catheter engaging the handle;  
a fitting engaging the handle at a proximal end of the fitting;  
a medical device inserted within the catheter; and  
a first lock supported by the handle for controlling longitudinal movement of the catheter relative to the sheath.
16. The steerable catheter device of claim 15 wherein a shape memory catheter tip engages a distal end of the catheter.
17. The steerable catheter device of claim 16 wherein the shape memory catheter tip extends from a distal end of the sheath.
18. The steerable catheter device of claim 15 wherein the fitting engages an irrigation inflow tube and an aspiration outflow tube.
19. The steerable catheter device of claim 15 wherein the body portion of the handle is adapted to be grasped and rotated to lock the first lock.
20. The steerable catheter device of claim 15 wherein the first lock adjusts a force required for longitudinal movement of the catheter relative to the sheath.

21. The steerable catheter device of claim 15 wherein the first lock controls a frictional resistance to longitudinal movement of the catheter relative to the sheath.
22. The steerable catheter device of claim 15 further comprising a second lock supported by the handle for controlling longitudinal movement of the medical device relative to the catheter.
23. The steerable catheter device of claim 22 wherein the second lock comprises an end cap threadably engaging the handle.
24. The steerable catheter device of claim 22 wherein the second lock comprises a resilient compressible lock member.
25. The steerable catheter device of claim 22 wherein the second lock adjusts a force required for longitudinal movement of the medical device relative to the catheter.
26. The steerable catheter device of claim 22 wherein the second lock controls a frictional resistance to longitudinal movement of the medical device relative to the catheter.
27. A method of delivering a medical device in a vasculature of a body comprising:
  - inserting a guidewire in the vasculature;
  - moving a steerable catheter device over the guidewire, the steerable catheter device having a handle, a sheath supported by the handle and a flexible catheter extending through the sheath;
  - moving the flexible catheter within the sheath to a treatment site;
  - locking the flexible catheter relative to the sheath with a first lock;
  - inserting the medical device through a proximal end of the flexible catheter at a proximal end of the steerable catheter device;
  - advancing the medical device to the treatment site;
  - locking the medical device relative to the flexible catheter with a second lock; and
  - removing the guidewire from the vasculature of the body.
28. The method of claim 27 further comprising inserting the flexible catheter of the steerable catheter device over the guidewire.
29. The method of claim 27 further comprising engaging a shape memory catheter tip to a distal end of the flexible catheter.
30. The method of claim 27 further comprising squeezing a trigger portion of the handle to advance the flexible catheter relative to the sheath.

31. The method of claim 27 further comprising rotating a body portion of the handle to compress a first resilient compressible lock member of the first lock on the flexible catheter to lock the flexible catheter relative to the sheath.
- 5 32. The method of claim 27 further comprising rotating an end cap of the handle to compress a second resilient compressible lock member of the second lock on the medical device to lock the medical device relative to the flexible catheter.
33. The method of claim 27 further comprising irrigating the treatment site with an irrigation tube delivering an irrigation medium through a plurality of holes in the sheath.
- 10 34. The method of claim 27 further comprising aspirating debris from the treatment site with an aspiration tube.
35. The method of claim 27 further comprising engaging the handle to the sheath with a fitting.